

REMARKS

In accordance with 37 C.F.R. §1.121 (as amended on 11/7/2000) the rewritten claim(s) above is/are shown on separate page(s), in the attached Appendix, marked up to show all the changes relative to the previous version of that claim.

Claims 1 and 18 have been amended above to replace the term "offset". It is believed that this change does not narrow or limit the claimed invention. The specification has been amended to clarify the vertically arrangement of the plug receiving areas as shown in the drawings. No new matter has been added.

Claim 34 was rejected under 35 USC §102(b) as being anticipated by Wu (US 6027375). Claims 1-33 were rejected under 35 USC §103(a) as being unpatentable over Wu (US 6027375) in view of Chang et al. (US 6296521). The examiner is requested to reconsider these rejections.

Claim 34 has been amended above to clarify applicant's claimed invention. The examiner's statement that projection 93 and shielding enclosure 98 anticipate applicant's claimed "supporting deck" is clearly incorrect. At best, projection 93 might be considered a supporting deck, but shielding enclosure 98 is certainly not disclosed as being part of the same projection 93. Thus, it is not appropriate for the examiner to state that projection 93 and shielding enclosure 98 anticipate applicants' claimed supporting deck. However, in an effort to accelerate prosecution, claim 34 has been amended to state that the signal conductors and power conductors are on opposite exterior sides of the deck. The

features of claim 34 are not disclosed or suggested in the art of record.

Claim 1 states that the power contacts extend into the receiving areas on respective sides of the receiving areas that are opposite the signal contacts in each receiving area. In Chang et al. the power contacts are not opposite the signal contacts in the receiving area of the shell 14. The power contacts 26 are adjacent the signal contacts 24. Nowhere in the cited art is there a disclosure or suggestion of power contacts extending into a receiving area from a first side of the receiving area and signal contacts extending into the same receiving area from an opposite second side. The features of claim 1 are patentable and should be allowed.

Though dependent claims 2-10 contain their own allowable subject matter, these claims should at least be allowable due to their dependence from allowable claim 1. However, to expedite prosecution at this time, no further comment will be made.

Claim 11 has been amended above merely to clarify the claimed invention. The change to the claim does not narrow or limit the scope of the claim. Claim 11 states that:

- electrical power contacts connected to the housing and extending into the receiving areas on respective sides of the receiving areas opposite the signal contacts in each of the receiving areas; and
- the housing has a section between two of the receiving areas, and wherein the power contacts extend from the

section in opposite directions into the two receiving areas.

With all due respect to the examiner, there is absolutely no disclosure or suggestion of these features in the cited art. Where in the references is there a disclosure or suggestion of power contacts extending into a receiving area opposite the signal contact from opposite respective sides? Where in the cited art is there a disclosure or suggestion of a housing with a section between two receiving areas and power contacts extending from the section into two receiving area? The examiner is requested to reconsider his rejection. Claim 11 is not disclosed or suggested in the cited art. Therefore, claim 11 is patentable and should be allowed.

Though dependent claims 12-17 contain their own allowable subject matter, these claims should at least be allowable due to their dependence from allowable claim 11. However, to expedite prosecution at this time, no further comment will be made.

Claim 18 has been amended above merely to clarify the claimed invention. The changes to the claim are not intended to narrow or limit the scope of the claim. Claim 18 states that the signal and power contacts in a first one of the receiving areas are arranged in an array. The signal contacts on a side of the first receiving area are located opposite the power contacts on an opposite side in the first receiving area. As noted above, Chang et al. merely discloses the power contacts and signal contacts being adjacent each other; not opposite each other. The features of claim 18 are not disclosed or

suggested in the cited art. Therefore, claim 18 is patentable and should be allowed.

Though dependent claims 19-25 contain their own allowable subject matter, these claims should at least be allowable due to their dependence from allowable claim 18. However, to expedite prosecution at this time, no further comment will be made.

In regard to independent claims 26 and 29 the examiner has made a critical error. The examiner has not given patentable weight to language in the claim because he has a mistaken believed that certain features are not positively recited. The examiner is incorrect. The examiner is directed to MPEP §2173.05(g). A function limitation is an attempt to define something by what it does, rather than by what it is. There is nothing inherently wrong with defining some part of an invention in functional terms. A functional limitation must be evaluated and considered, just like any other limitation of the claim.

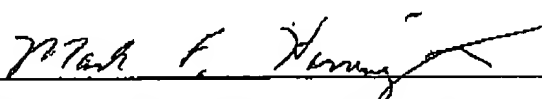
In the present case, claim 26 states that the plug receiving area is "sized and shaped to ...". The feature is positively recited and, this is a functional limitation of the plug receiving area. The examiner has made an error in not giving the limitations regarding the plug receiving capabilities of the plug receiving area patentable weight. Likewise, claim 29 states that one of the receiving area sections is "sized and shaped to ...". The feature is positively recited and, this is a functional limitation of the plug receiving area. The examiner has made an error in not giving the limitations

regarding the plug receiving capabilities of the plug receiving area patentable weight.

The features of claim 26 and 29 are not disclosed or suggested in the cited art. Therefore, claims 26 and 29 are patentable and should be allowed. Though dependent claims 27-28 and 30-33 contain their own allowable subject matter, these claims should at least be allowable due to their dependence from allowable claims 26 and 29, respectively. However, to expedite prosecution at this time, no further comment will be made.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issue remain, the Examiner is invited to call Applicants' Attorney at the telephone number indicated below.

Respectfully submitted,



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1/7/03
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Appendix

Application No.: 09/900,507

Marked Up Specification Replacement Paragraph(s)

Page 9, lines 10-19:

In the embodiment shown, the two receiving areas 46, 48 are vertically offset from each other. As seen in the drawings, the two receiving areas 46, 48 are vertically spaced or stacked relative to each other. The two receiving areas 46, 48 are vertically aligned one above the other. However, in alternate embodiments, the two receiving areas 46, 48 could be at least partially horizontally offset from each other. Although the receiving areas 46, 48 have been described as being substantially mirror images of each other, in an alternate embodiment the receiving areas could be aligned in a substantially identical orientation.

Marked Up Claim(s)

1. (Amended) An electrical connector comprising:

electrical contacts comprising signal contacts and power contacts; and

a housing having the electrical contacts connected thereto, the housing comprising at least two vertically [offset] arranged electrical plug receiving areas, wherein the signal contacts extend into the receiving areas in a universal serial bus (USB) electrical

conductor location configuration, and wherein the power contacts extend into the receiving areas on respective sides of the receiving areas that are opposite the signal contacts in each receiving area.

2. An electrical connector as in claim 1 wherein the signal contacts comprise spring contact sections extending into the plug receiving areas, tails extending from a bottom side of the housing, and bent sections therebetween.

3. An electrical connector as in claim 2 wherein the spring contact sections of the signal contacts extend into two of the plug receiving areas in opposite directions.

4. An electrical connector as in claim 1 wherein the power contacts comprise spring contact sections extending into the plug receiving areas, tails extending from a bottom side of the housing, and bent sections therebetween.

5. An electrical connector as in claim 4 wherein the spring contact sections of the power contacts extend into two of the receiving areas in respective opposite directions.

6. An electrical connector as in claim 1 wherein the housing comprises a section between two of the plug receiving areas, and wherein the power contacts extend from the section into the two plug receiving areas.

7. An electrical connector as in claim 1 wherein the electrical contacts extending into a first one of the plug receiving areas are arranged as a substantially mirror image to the electrical contacts extending into a second one of the plug receiving areas.

8. An electrical connector as in claim 1 wherein each plug receiving area comprises four of the signal contacts extending thereinto and two of the power contacts extending thereinto opposite the four signal contacts,

9. An electrical connector as in claim 1 further comprising an electrically conductive shell connected to the housing, the shell comprising contacts extending into the plug receiving areas.

10. An electrical connector as in claim 9 wherein the housing comprises projections extending into the receiving areas in a forward direction, portions of the signal contacts extending through cavities along the projections, and ends of the signal contacts being preloaded against sections of the projections.

11. (Twice Amended) A universal serial bus (USB) electrical connector comprising:

a housing forming a plurality of USB plug receiving areas;

electrical signal contacts connected to the housing, and extending into the receiving areas, arranged for operably electrically connecting to the USB plugs inserted into the USB plug receiving areas; and

electrical power contacts connected to the housing and extending into the receiving areas on respective sides of the receiving areas opposite the signal contacts in each of the receiving areas, wherein the housing has a section between two of the receiving areas, and wherein the power

contacts extend from the section in opposite directions into the two receiving areas.

12. A universal serial bus electrical connector as in claim 11 wherein the two receiving areas are vertically orientated relative to each other.

13. A universal serial bus electrical connector as in claim 11 wherein the electrical signal contacts extend into the receiving areas opposite the electrical power contacts.

14. (Amended) A universal serial bus electrical connector as in claim 11 wherein the signal and power contacts extending into a first one of the receiving areas are arranged as a substantially mirror image of the signal and power contacts extending into a second one of the receiving areas.

15. A universal serial bus electrical connector as in claim 11 wherein the receiving areas extend into a front side of the housing, and wherein ends of the contacts extend from a bottom side of the housing.

16. A universal serial bus electrical connector as in claim 11 wherein the plug receiving areas are vertically aligned relative to each other, and wherein the electrical signal contacts and the electrical power contacts in the two receiving areas are arranged as substantially mirror images of each other.

17. A universal serial bus electrical connector as in claim 16 further comprising an electrically conductive shell connected to the housing, the shell comprising contact arms which extend into the two receiving areas in opposite directions.

18. (Twice Amended) An electrical connector comprising:
- a housing having two plug receiving areas vertically [offset] stacked relative to each other; and
- electrical contacts connected to the housing and extending into the two plug receiving areas, the contacts comprising signal contacts and power contacts,
- wherein the power contacts extend into the two receiving areas and the signal contacts extend into the two receiving areas, and wherein the signal and power contacts in a first one of the receiving areas are arranged in an array with the signal contacts on [sides of each receiving area that are] a side of the first receiving area being located opposite the power contacts on an opposite side in the first receiving area, the array being substantially a mirror image of the signal and power contacts in a second one of the receiving areas.
19. An electrical connector as in claim 18 wherein the housing comprises a section located between and separating the two plug receiving areas from each other.
20. An electrical connector as in claim 19 wherein the two plug receiving areas are vertically aligned relative to each other.
21. An electrical connector as in claim 19 wherein the power contacts extend from the section in opposite directions into the two receiving areas.

22. An electrical connector as in claim 21 wherein the signal contacts extend into the first and second receiving areas in respective opposite inward directions.

23. An electrical connector as in claim 18 further comprising an electrically conductive shell connected to the housing, the shell comprising contact arms extending into the two receiving areas from four sides of the connector.

24. An electrical connector as in claim 18 wherein the housing comprises two projections extending towards a front end of the housing above and below a center projection of the housing, and wherein the signal contacts extend through the two projections and project out of the two projections in opposite directions towards the center projection.

25. An electrical connector as in claim 24 wherein the power contacts extend through and out of the center projection in opposite directions into the two plug receiving areas.

26. (Amended) A universal serial bus (USB) electrical connector receptacle for receiving a plurality of USB electrical connector plugs, the receptacle comprising:

a housing having at least one plug receiving area; and

electrical contacts connected to the housing, the contacts comprising signal contacts and power contacts,

wherein the at least one plug receiving area is sized and shaped to receive the plurality of USB plugs with signal contact supporting decks of two of the plugs being located vertically [offset] aligned relative to each

other and power contact supporting sections of the two plugs being at least partially laterally adjacent each other.

27. A universal serial bus electrical connector receptacle as in claim 26 wherein the housing comprises two of the plug receiving areas, the two plug receiving areas being vertically aligned with each other.

28. A universal serial bus electrical connector receptacle as in claim 27 wherein the signal contacts extend into the two receiving areas in a same direction.

29. (Once Amended) An electrical connector comprising:

a housing having at least one plug receiving area; and

electrical contacts connected to the housing, the contacts comprising signal contacts and power contacts,

wherein the at least one plug receiving area comprises:

a first receiving area section sized and shaped to receive a first electrical plug having a signal contact supporting deck and a power contact section vertically offset from the signal contact supporting deck; and

a second receiving area section sized and shaped to receive a second electrical plug having a signal contact supporting deck and a power contact section vertically offset from the signal contact supporting deck,

and wherein at least one of the first and second receiving area sections is sized and shaped to alternatively receive a third electrical plug having a signal contact supporting deck, but not having a power contact section.

30. An electrical connector as in claim 29 wherein the at least one plug receiving area is sized and shaped to locate the power contact sections of the first and second electrical plugs laterally adjacent to each other.

31. An electrical connector as in claim 30 wherein the first and second receiving area sections are vertically aligned with each other.

32. An electrical connector as in claim 29 wherein the signal contacts and the power contacts extend into the first receiving area section in opposite directions.

33. An electrical connector as in claim 29 wherein the first and second receiving area sections each comprise a deck receiving area for receiving contact supporting decks of the first and second electrical plugs, and a common power contact section receiving area is located between the deck receiving areas.

34. (Amended) A universal serial bus (USB) electrical connector plug comprising:

a signal contact supporting deck;

electrical signal conductors directly stationarily attached to a first exterior side of the supporting deck; and

electrical power conductors directly stationarily attached to an opposite second exterior side of the supporting deck, wherein the supporting deck is sized and shaped to be inserted into a supporting deck receiving aperture of a USB electrical connector receptacle, and wherein the electrical signal conductors are aligned in a USB contact array configuration.

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